

Title: Screen reader text for: Figure_1_in_Unlocking_history_through _automated_virtual_unfolding_of sealed_documents imaged_by_X_ray_microtomography

The Unlocking History team is developing a system to make letterlocking-related descriptions accessible. Please check back for updates to this file.

Overview

- **Figure 1 contains four letterlocking examples from the Brienne Collection**
- This document presents five different ways of looking at four letters from the Brienne Collection, DB-1538, DB-1627, DB-1976, and DB-2040. The figure is divided into four horizontal boxes, each of which is dedicated to one of these letters. The different representations of these letters are labelled **a-e**. Letter **a** shows a photographic image of the front and back of the letterpacket in its folded manifestation. Letter **b** shows a transparent view through the volumetric XMT data, like an x-ray, showing varied distribution of layers across the letterpacket. Letter **c** shows a vector diagram of the letter as it would look unfolded, with its crease pattern signified by a series of criss-crossing lines, color-coded to indicate whether they are mountain or valley folds. Letter **d** shows a proposed step-by-step letterlocking process to make this packet from a flat piece of paper, based on virtual unfolding results. Letter **e** indicates what category each packet is in, which manipulations have been used to make it, and what its security score is. DB-1538 and DB-1627 are category 5, zero security; DB-1976 and DB-2040 are category 15, medium security.